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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,894	02/13/2007	Yoshinobu Nakajima	283009US0PCT	2360
22850 7590 06/24/2010 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER MOORE, WALTER A				
ART UNIT 1783		PAPER NUMBER		
NOTIFICATION DATE 06/24/2010		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/560,894

Applicant(s)

NAKAJIMA ET AL.

Examiner

WALTER MOORE

Art Unit

1783

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 5, 6, 10, 15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5, 6, 10, 15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

RESPONSE TO AMENDMENT

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/22/2010 has been entered.

Status of Claims

2. Claims 1, 3, 5, 6, 10, 15, and 17 are pending. Claims 2, 4, 7-9, 11-14, 16, and 18-20 were canceled; and claim 1 was amended in the response filed on 3/22/2010.

Withdrawn Rejections

3. The 35 USC 103 rejections of claims 1-5 and 7-13 as obvious over Kawai in view of Goto, made of record in the office action mailed on 12/21/2009, have been withdrawn due to applicant's amendment filed on 3/22/2010.

4. The 35 USC 103 rejections of claims 6 and 14-20 as obvious over Kawai in view of Goto and Koike, made of record in the office action mailed on 12/21/2009, have been withdrawn due to applicant's amendment filed on 3/22/2010.

REJECTIONS

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

6. Claim 1 is objected to because there is a comma after the composition in line 1. The comma is unnecessary. Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. Claims 1, 3, 5, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiiba et al., USPA 2002/0119239, in view of Goto et al., USPN 6,139,897.

Shiiba discloses an acidic oil-in-water emulsified composition (p. 1, para 0002). Shiiba discloses the composition includes fats and oils comprising 30 wt % or more of diglycerides (DAG, p. 1, para 0009, col. 2, ln. 7). Shiiba discloses an enzyme-treated yolk (p. 2, para 0016) treated with esterase, lipase and/or phospholipase (p. 2, para 0016). Shiiba discloses at least one emulsifier (crystallization inhibitor, p. 1, para 0012) selected from sorbitan, polyglycerin, and sucrose fatty acid esters (p. 1, para 0012, ln. 2-3). Shiiba discloses the sorbitan fatty acid has an HLB less than 2.5 (p. 1, para 0013, ln. 10). Shiiba discloses the polyglycerin fatty acid has an HLB less than 3.5 (p. 1, para 0012, ln. 9). Shiiba discloses the sucrose fatty acid has an HLB less than 2 (p. 1, para 0013, ln. 7). Shiiba discloses the content of said emulsifier ranges from 0.5% to 5.0% by weight (p. 1, para 0013, ln. 12).

Shiiba does not disclose an antioxidant.

Goto is drawn to an acidic (col. 6, ln. 24) oil-in-water composition (col. 6, ln. 13) comprising diglycerols (col. 2, ln. 63) and phytosterols (col. 6, ln. 20). Goto teaches adding antioxidant in the range of 50 to 2000 ppm in the oil composition (col. 4, ln. 66-67). Goto teaches adding the antioxidant for the purposes of storage stability and flavor stability (col. 4, ln. 67). It would have been obvious to one of ordinary skill in the art at the time of invention to use an antioxidant, as taught in Goto, in the oil-in-water emulsified composition, taught in Shiiba, to obtain an oil-in-water emulsified composition having an antioxidant because the antioxidant improves storage stability and flavor stability (Goto, col. 4, ln. 67).

Shiiba in view of Goto does not expressly recognize the ratio of antioxidant to yolk. However, one of ordinary skill in the art would expect that the limitation is present for several reasons.

First, the prior art suggests range of yolk as disclosed in the Specification, as well as an overlapping range of antioxidant as disclosed and claimed. Shiiba discloses the yolk present between 5% and 20% of the composition (p. 2, para 0015). The Specification discloses the yolk present between 5% and 20% of the composition (Specification, p. 8, ln. 12). Goto discloses between 50 and 2000 ppm antioxidant, which overlaps the disclosed and claimed range of antioxidant. Therefore, one of ordinary skill in the art at the time of invention would expect that the yolk to antioxidant ratio would be present because both constituents, i.e. yolk and antioxidant, are within the disclosed and claimed ranges.

Second, simple calculations suggest the presence of the limitation in the combined references. Shiiba discloses having between 5 and 20% yolk (p. 2, para 0015). Shiiba discloses between 5 and 85% oil (p. 1, para 0011). Goto discloses between 50 and 2000 ppm antioxidant

(col. 4, ln. 66-67). The combination of references suggests an antioxidant to yolk percentage of between 0.001% ([50 ppm antioxidant * 5% oil]/20% yolk) and 3.4% ([2000 ppm antioxidant * 85% oil]/5% yolk).

Regarding claim 3, Goto teaches the antioxidant is tocopherol and tocotrienol (col. 5, ln. 3).

Regarding claims 5 and 10, Shiiba does not disclose the composition includes a phytosterol.

Goto is drawn to an acidic (col. 6, ln. 24) oil-in-water composition (col. 6, ln. 13) comprising diglycerols (col. 2, ln. 63) and phytosterols (col. 6, ln. 20). Goto discloses phytosterols reduce cholesterol (col. 1, ln. 15-16). Goto discloses the composition is useful in mayonnaise type products (col. 5, ln. 13). Goto discloses the combination of diglycerides (diacylglycerol, col. 5, ln. 26-27) and phytosterols have a synergistic effect (col. 5, ln. 27-30). It would have been obvious to one of ordinary skill in the art at the time of invention to include phytosterols, as taught in Goto, in the oil in water composition, taught in Shiiba, to obtain oil in water composition having phytosterols. One of ordinary skill in the art would have been motivated to include phytosterols because they reduce cholesterol (col. 1, ln. 15-16).

8. Claims 6, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiiba et al., USPA 2002/0119239, in view of Goto et al., USPN 6,139,897 as applied to claims 1, 3, 5, and 10 above, and further in view of Koike et al., WO 2002/011552.

Shiiba in view of Goto is relied on as above. Shiiba in view of Goto does not teach an oil-in-water emulsified composition wherein the content of trans-unsaturated fatty acids in the diglyceride is 5% or less.

Koike is drawn to an oil/fat composition having a specific glyceride composition (p. 1, ln. 4-5). Koike teaches a diglyceride with 15 to 90 wt. % of its fatty acid constituents comprising omega 3-unsaturated fatty acids. Koike teaches the content of the trans-unsaturated fatty acid is preferably 5% or less for health reasons (p. 5, ln. 17-18). Koike highlights various negative health aspects of trans-unsaturated fatty acids (p. 2). It would have been obvious to one of ordinary skill in the art at the time of invention to use diglycerides with a trans-unsaturated fatty acid content of less than 5%, as taught in Koike, in the oil-in-water emulsion composition, taught in Shiiba in view of Goto, to obtain an the oil-in-water emulsion composition having diglycerides with a trans-unsaturated fatty acid content of less than 5% because diglycerides with 5% and lower trans-unsaturated fatty acids pose less health risks (Koike, p. 2).

Response to Arguments

9. Applicant's arguments with respect to the Kawai reference have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues the failure of the references to expressly recognize the claimed limitation of antioxidant to yolk ratio overcomes the rejection of the claims (Remarks, p. 5, para 3). Examiner is not persuaded by the argument for several reasons. First, the combination of references suggests the claimed limitation (see rejection above). Second, there is no requirement for prior art to expressly recognize a claimed limitation. "The express, implicit, and inherent

disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. MPEP 2112. “[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom”. MPEP 2144.01. Here, one of ordinary skill in the art would recognize the ratio of antioxidant and yolk to be present for the reasons given in the rejection above.

Applicant argues “the discovery of a problem or the cause of a problem can lead to patentability to an invention” (Remarks, p. 6, para 2). Examiner is not persuaded by the argument in this situation. Unlike the Eibel case, the prior art recognizes the problem, i.e. oxidation, and presents the solution, i.e. adding an antioxidant.

Applicant argues unexpected results in the use of the claimed emulsifiers (p. 8, para 4). As set forth in MPEP 716.02(d), whether unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, “objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support”. In other words, the showing of unexpected results must be reviewed to see if the results occurred over the entire claimed range, *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980).

Applicants have not provided data to show that the unexpected results do in fact occur over the entire claimed range of antioxidant and emulsifier having an HLB of less than 10. Applicant relies on a comparison between Examples 2 and 6-8. Examples 6-8 use 0.53% emulsifier, which is less than the presently claimed range of emulsifier. Examples 6-8 use 1942 ppm of antioxidant, which is a single point within the claimed range of 1200 to 8000 ppm.

Examples 6-8 use emulsifiers with HLB between 1.0 and 3.0 (see footnotes). The present range is between 0 and 10. Therefore, the data fails to support unexpected results over the claimed range.

Additionally, Applicant relies on the subjective interpretations of flavor and full-bodied taste (see figure 1) to contrast Example 2 against Examples 6-8. However, the Specification fails to provide an indication that the subjective interpretations of flavor and full-bodied taste are repeatable. In other words, Applicant relies on a property (i.e. flavor and full-bodied taste) that cannot be objectively quantified or measured.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Koike et al., USPA 2003/0054082, disclosing 2000 ppm to 50000 ppm antioxidant in an oil composition (p. 3, para 0029).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WALTER MOORE whose telephone number is (571) 270-7372. The examiner can normally be reached on Monday-Thursday 9:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WM/
Walter Moore, Examiner AU 1783
6/18/2010

/David R. Sample/
Supervisory Patent Examiner, Art Unit 1783